

Title (en)
SYSTEMS AND METHODS INCORPORATING A NEURAL NETWORK AND A FORWARD PHYSICAL MODEL FOR SEMICONDUCTOR APPLICATIONS

Title (de)
SYSTEME UND VERFAHREN MIT EINEM NEURONALEN NETZWERK UND EINEM PHYSISCHEN FORWARD-MODELL FÜR HALBLEITERANWENDUNGEN

Title (fr)
SYSTÈMES ET PROCÉDÉS INCORPORANT UN RÉSEAU NEURONAL ET UN MODÈLE PHYSIQUE AVANT DESTINÉS À DES APPLICATIONS À SEMI-CONDUCTEURS

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Abstract (en)
[origin: WO2017210455A1] Methods and systems for training a neural network are provided. One system includes one or more components executed by one or more computer subsystems. The one or more components include a neural network configured for determining inverted features of input images in a training set for a specimen input to the neural network, a forward physical model configured for reconstructing the input images from the inverted features thereby generating a set of output images corresponding to the input images in the training set, and a residue layer configured for determining differences between the input images in the training set and their corresponding output images in the set. The one or more computer subsystems are configured for altering one or more parameters of the neural network based on the determined differences thereby training the neural network.

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